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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/511,237	02/23/2000	Martin Zilliacus	017.37999X00	3595

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EXAMINER

GREENE, DANIEL L

ART UNIT	PAPER NUMBER
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3621

DATE MAILED: 10/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/511,237

Applicant(s)

ZILLIACUS ET AL.

Examiner

Daniel L. Greene

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-114 is/are pending in the application.
- 4a) Of the above claim(s) 61-114 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,5,7.                      6) ☐ Other:

**DETAILED ACTION**

***Election/Restrictions***

1. Claims 61-114 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention there being no allowable generic or linking claim. Election was made **without** traverse in Paper No.8

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claims 1-60 are pending and presented for examination.

***Claim Rejections - 35 USC § 112***

2. Claim 13 recites the limitation "the random number" in the third limitation. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3,12, 25-27,38-39, 49-51,60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talati et al. US 5,903,878 – Talati'878, and further in view of Teper et al. US 5,815,665 – Teper'665.

As per claims 1,49.

Talati'878 discloses:

ordering and paying for a content by a user selected from a content provider;

Fig. 6

transmitting a first service response value calculated by the user to the content provider; Col.3, lines 12-29.

calculating a second service response value by a network operator when the user requests the content from the network operator; Col. 6, lines 1-15.

verifying, by the network operator contacting the content provider, that the first service response value matches the second service response value; Col.6, lines 61-68, Col. 7, lines 1-24.

transmitting the content to the user when the first service response value matches the second service response value. Col. 7, lines 18-20.

Talati'878 discloses the claimed invention except for the transmitting the content to the user by the network operator (Broker). Teper'665 teaches that it is known to transmit the content to the user by the network operator (Broker). It would have been obvious to one having ordinary skill in the art at the time the invention was made to transmit the content to the user by the network operator as taught by Teper'665, since

Teper'665 demonstrates in Fig. 3 that such a modification allows users to purchase contents online without having to reveal personal information about themselves or their account numbers.

As per Claims 2,38 & 50.

Talati'878 further discloses the claimed invention, as discussed above, except for the step of wherein the first service response value is calculated by the user based on a random number supplied by the content provider and a first secret key possessed by the user. However, Talati'878 teaches about the TA (service provider) and the user (client) using suitable encryption methods and a random number (unique transaction identifier). Col. 3, lines 4-33. It would have been an obvious matter of design choice to modify the teachings of Talati'878 further, to provide the step of wherein the first service response value is calculated by the user based on a random number supplied by the content provider and a first secret key possessed by the user. Since the applicant has not disclosed that wherein the first service response value is calculated by the user based on a random number supplied by the content provider and a first secret key possessed by the user solves any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill and it appears that the claimed feature does not distinguish the invention over similar features in the prior art since, the teachings of Talati'878 further will perform the invention as claimed by the

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applicant with any method, means, or product to wherein the first service response value is calculated by the user based on a random number supplied by the content provider and a first secret key possessed by the user.

As per Claims 3, 27, 39 & 51.

Talati'878 further discloses the claimed invention except for the wherein the second service response value is calculated by the network operator based on the random number received from the user and a second secret key possessed by the network operator and associated with the user. Teper'665 teaches that it is known to wherein the second service response value is calculated by the network operator based on the random number received from the user and a second secret key possessed by the network operator and associated with the user. It would have been obvious to one having ordinary skill in the art at the time the invention was made to wherein the second service response value is calculated by the network operator based on the random number received from the user and a second secret key possessed by the network operator and associated with the user as taught by Teper'665, since Teper'665 states at Col. 5&6, lines 1-68 that such a modification would provide the authentication required to identify the specific transaction between the network operator (Online Broker) and the user.

As per Claim 12 & 60.

Talati'878 and Teper'665 discloses the claimed invention and Talati'878 further teaches wherein the user pays the content provider for the content, using a credit card, debit card, or electronic transferal of funds. Col. 7, lines 24-68, Col. 8, lines 1-16.

As per Claim 25.

Talati'878 discloses as per Col.3, lines 4-60.

ordering a content from a network operator, having a content ID selected by a user;

transmitting a first service response value calculated by the user to the network operator;

calculating a second service response value by a network operator and determining if the first service response value matches the second service response value;

transmitting the content ID to the content provider;

transmitting the content to the user by the content provider when requested by the user.

Talati'878 discloses the claimed invention, as discussed above, except for the step of calculating a cipher key. Talati'878 teaches the generation of encryption codes by the user. Col.3, lines 30-35. It would have been an obvious matter of design choice to

modify the teachings of Talati'878, to provide the step of calculating a cipher key. Since the applicant has not disclosed that calculating a cipher key solves any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill and it appears that the claimed feature does not distinguish the invention over similar features in the prior art since, the teachings of Talati'878 will perform the invention as claimed by the applicant with any method, means, or product to calculating a cipher key.

As per Claim 26.

Talati'878 further discloses;

wherein the user based on a random number calculates the first service response value supplied by the network operator and a first secret key possessed by the user. Col. 6, lines 62-68, Col. 7, lines 1-25.

**Claims 4-11,13-21,24, 28-35,37, 40-47, 52-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talati'878, and further in view of Teper'665 and Murto US 5,991,407-Murto'407 .**

As per Claims 4,28,40,52.

Talati'878 and Teper'665 further discloses the claimed invention except for wherein the first secret key is contained in a subscriber identification module provided



by the network operator and contained in the mobile station in such a manner that the user and the mobile station may not discover the value of the secret key. However, Talati'878 does teach about the use of the Internet, dial-up-network or any suitable network. Murto'407 teaches that it is known to wherein the first secret key is contained in a subscriber identification module provided by the network operator and contained in the mobile station in such a manner that the user and the mobile station may not discover the value of the secret key.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to wherein the first secret key is contained in a subscriber identification module provided by the network operator and contained in the mobile station in such a manner that the user and the mobile station may not discover the value of the secret key as taught by Murto'407, since Murto'407 states at Col.1, lines 10-65 that such a modification would prevent the unauthorized monitoring of transactions and the identity of the parties involved.

As per Claims 5,29,41&53.

Talati'878 and Teper'665 further discloses the claimed invention except for the wherein the second secret key is stored in an authentication center of a telecom infrastructure operated by the network operator and the first secret key and the second secret key are identical and assigned when the user subscribes for a telecommunication service provided by the network operator. Murto'407 teaches that it is known to wherein the second secret key is stored in an authentication center of a telecom infrastructure

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operated by the network operator and the first secret key and the second secret key are identical and assigned when the user subscribes for a telecommunication service provided by the network operator. It would have been obvious to one having ordinary skill in the art at the time the invention was made to wherein the second secret key is stored in an authentication center of a telecom infrastructure operated by the network operator and the first secret key and the second secret key are identical and assigned when the user subscribes for a telecommunication service provided by the network operator, as taught by Murto'407, since Murto'407 states at Col. 1&2, lines 1-68 that such this modification would provide for the authentication and secrecy of the participants.

As per Claims 6,17,30,42&54.

Talati'878 and Teper'665 further discloses the claimed invention except for the wherein the first service response value is calculated by an A3 algorithm module contained in the subscriber identification module of the mobile station based on the first secret key and the random number. Murto'407 teaches that it is known to wherein the first service response value is calculated by an A3 algorithm module contained in the subscriber identification module of the mobile station based on the first secret key and the random number. It would have been obvious to one having ordinary skill in the art at the time the invention was made to wherein the first service response value is calculated by an A3 algorithm module contained in the subscriber identification module of the mobile station based on the first secret key and the random number as taught

by Murto'407, since Murto'407 states at Col. 5, lines 62-68, Col. 6, lines 1-27 that such a modification would provide the algorithms required for the authentication of the messages.

As per Claims 7,18,31,43 & 55.

Talati'878 and Teper'665 further discloses the claimed invention except for the wherein the second service response value is calculated by an A3 algorithm module, contained in the authentication center of the telecom infrastructure, based on the second secret key, contained in the authentication center of the telecom infrastructure, and the random number. Murto'407 teaches that it is known to wherein the second service response value is calculated by an A3 algorithm module, contained in the authentication center of the telecom infrastructure, based on the second secret key, contained in the authentication center of the telecom infrastructure, and the random number. It would have been obvious to one having ordinary skill in the art at the time the invention was made to wherein the second service response value is calculated by an A3 algorithm module, contained in the authentication center of the telecom infrastructure, based on the second secret key, contained in the authentication center of the telecom infrastructure, and the random number as taught by Murto'407, since Murto'407 states at Col. 5, lines 62-68, Col. 6, lines 1-27 that such a modification would provide the algorithms required for the authentication of the messages.

As per Claims 8,19,32,44 & 56.

Talati'878 and Teper'665 further discloses the claimed invention except for the wherein the mobile station is a cellular phone with GSM authentication capability connected to a processor based system, or a WAP-capable cellular phone with GSM authentication capability, or a HTML capable cellular phone with GSM authentication capability. Murto'407 teaches that it is known to wherein the mobile station is a cellular phone with GSM authentication capability connected to a processor based system, or a WAP-capable cellular phone with GSM authentication capability, or a HTML capable cellular phone with GSM authentication capability. It would have been obvious to one having ordinary skill in the art at the time the invention was made to wherein the mobile station is a cellular phone with GSM authentication capability connected to a processor based system, or a WAP-capable cellular phone with GSM authentication capability, or a HTML capable cellular phone with GSM authentication capability's taught by Murto'407, since Murto'407 states at Col. 3, lines 1-68, that such a modification would provide GSM capabilities to the system.

As per Claims 9,20,33,45 & 57.

Talati'878 and Teper'665 further discloses the claimed invention except for the wherein the content is encrypted by the network operator using a cipher key, calculated by an A8 algorithm module based on the random number and the second secret key, prior to transmitting the content to the user. Murto'407 teaches that it is known to wherein the content is encrypted by the network operator using a cipher key, calculated

by an A8 algorithm module based on the random number and the second secret key, prior to transmitting the content to the user.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to wherein the content is encrypted by the network operator using a cipher key, calculated by an A8 algorithm module based on the random number and the second secret key, prior to transmitting the content to the user as taught by Murto'407, since Murto'407 states at Col. 5, lines 62-68, Col. 6, lines 1-27 that such a modification would provide the algorithms required for the authentication of the messages.

As per Claims 10,21,34,46 & 58.

Talati'878 and Teper'665 further discloses the claimed invention except for the further comprising decrypting the content by the mobile station using an A8 algorithm module contained in the subscriber identification module of the mobile station to generate the cipher key based on the random number and the first secret key.

Murto'407 teaches that it is known to further comprising decrypting the content by the mobile station using an A8 algorithm module contained in the subscriber identification module of the mobile station to generate the cipher key based on the random number and the first secret key.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further comprising decrypting the content by the mobile station using an A8 algorithm module contained in the subscriber identification module of the

mobile station to generate the cipher key based on the random number and the first secret key as taught by Murto'407, since Murto'407 states at Col. 7, lines 62-68, Col. 7, lines 1-58 that such a modification would provide the algorithms required generating the cipher key to open up the message.

As per Claims 11,24,35,47&59.

Talati'878, Teper'665 and Murto'407 discloses the claimed invention, as discussed above, except for the step of wherein the cipher key is used as a seed to a cryptographic protocol which transforms the cipher key into a stronger cipher key. It would have been an obvious matter of design choice to modify the teachings of Talati'878, Teper'665 and Murto'407, to provide the step of wherein the cipher key is used as a seed to a cryptographic protocol which transforms the cipher key into a stronger cipher key. Since the applicant has not disclosed that wherein the cipher key is used as a seed to a cryptographic protocol which transforms the cipher key into a stronger cipher key solves any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill and it appears that the claimed feature does not distinguish the invention over similar features in the prior art since, the teachings of Talati'878, Teper'665 and Murto'407 will perform the invention as claimed by the applicant with any method, means, or product to wherein the cipher key is used as a seed to a cryptographic protocol which transforms the cipher key into a stronger cipher key.

As per Claims 13,37.

Talati'878 discloses:

ordering a content having a content ID by a user selected from a content provider; Fig. 6

transmitting a first service response value by the user to the content provider; Col.3, lines 12-29.

transmitting the first service response value and the random number to a network operator by the content provider; Col.3, lines 12-29.

calculating a second service response value by a network operator and determining if the first service response value matches the second service response value; Col. 6, lines 1-15.

transmitting the content to the user, when the first service response value matches second service response value, by the content provider. Col. 7, lines 18-20.

Talati'878 discloses the claimed invention except for the limitations of including in the service response the additional data items of a mobile network identifier and a cipher key. However, Talati'878 teaches using suitable encryption methods and expands his description of it by detailing out additional security data such as social security numbers, driver's license number, etc. It would have been obvious to one having ordinary skill in the art at the time the invention was made to increase the data items used as taught by Talati'878 to increase the security of the code strings used.

As per Claim 14.

Talati'878 further discloses the claimed invention, as discussed above, except for the step of wherein the first service response value is calculated by the user based on a random number supplied by the content provider and a first secret key possessed by the user. However, Talati'878 teaches about the TA (service provider) and the user (client) using suitable encryption methods and a random number (unique transaction identifier). Col. 3, lines 4-33. It would have been an obvious matter of design choice to modify the teachings of Talati'878 further, to provide the step of wherein the first service response value is calculated by the user based on a random number supplied by the content provider and a first secret key possessed by the user. Since the applicant has not disclosed that wherein the first service response value is calculated by the user based on a random number supplied by the content provider and a first secret key possessed by the user solves any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill and it appears that the claimed feature does not distinguish the invention over similar features in the prior art since, the teachings of Talati'878 further will perform the invention as claimed by the applicant with any method, means, or product to wherein the first service response value is calculated by the user based on a random number supplied by the content provider and a first secret key possessed by the user.

Talati'878 discloses the claimed invention, as discussed above, except for the step of containing the information in a mobile station. It would have been an obvious matter of design choice to modify the teachings of Talati'878, to provide the step of containing the information in a mobile station. Since the applicant has not disclosed that containing the



information in a mobile station solves any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill and it appears that the claimed feature does not distinguish the invention over similar features in the prior art since, the teachings of Talati'878 will perform the invention as claimed by the applicant with any method, means, or product to containing the information in a mobile station.

As per Claim 15.

Talati'878 discloses the claimed invention except for the limitations of including in the service response the additional data items of a mobile network identifier and a cipher key. However, Talati'878 teaches using suitable encryption methods and expands his description of it by detailing out additional security data such as social security numbers, driver's license number, etc. It would have been obvious to one having ordinary skill in the art at the time the invention was made to increase the data items used as taught by Talati'878 to increase the security of the code strings used.

As per Claim 16.

Talati'878 discloses the claimed invention except for the wherein the first secret key is not accessible directly by the user or the mobile station and the value of the secret key may not be discovered by the user, but is identical to the second secret key and both the first secret key and the second secret key are assigned when the user subscribes for a telecommunication service provided by the network operator.

Teper'665 teaches that it is known to wherein the first secret key is not accessible directly by the user or the mobile station and the value of the secret key may not be discovered by the user, but is identical to the second secret key and both the first secret key and the second secret key are assigned when the user subscribes for a telecommunication service provided by the network operator.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to wherein the first secret key is not accessible directly by the user or the mobile station and the value of the secret key may not be discovered by the user, but is identical to the second secret key and both the first secret key and the second secret key are assigned when the user subscribes for a telecommunication service provided by the network operator as taught by Teper'665, since Teper'665 states at Col. 5&6, lines 1-68 that such a modification would provide the control and authentication to protect/identify specific information.

**Claims 22,23,36,48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talati'878, and further in view of Teper'665, Murto'407 and Nikander US 6,029,151-Nikander'151.**

As per Claims 22,36,48.

Talati'878, Teper'665 and Murto'407 discloses the claimed invention except for the wherein the user is billed by the network operator for the content in a telephone bill. Nikander'151 teaches that it is known to wherein the user is billed by the network

operator for the content in a telephone bill. It would have been obvious to one having ordinary skill in the art at the time the invention was made to wherein the user is billed by the network operator for the content in a telephone bill as taught by Nikander'151, since Nikander'151 states at Col. 2, lines 55-68 that such a modification would provide an easy way for the customer to use electronic money.

As per claim 23.

The method recited in claim 13, further comprising:

hashing, by the user, a price of the content, the random number and a seller ID to create a hashed number; computing, by the user, the first service response value based on the secret key and the hashed random number; transmitting, by the user, the first service response value to the content provider;

transmitting, by the content provider, the random number, the sellers ID the price of the content and the first service response to the network operator;

computing, by the network operator, the second service response value based on the secret key, the price transmitted by the content provider and the random number;

verifying, by the network operator that the first service response value matches the second service response value; billing the user, by the network operator, the price when the first service response value matches the second service response value in a telephone bill.

Each of these limitations has been addressed in the previous claims and therefore requires no further examination and description of what was previously cited.

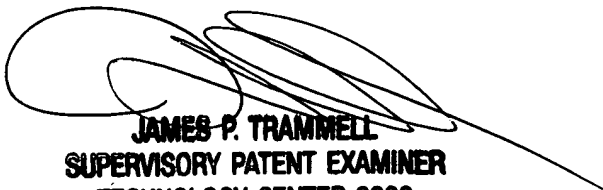
**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel L. Greene whose telephone number is 703.306.5539. The examiner can normally be reached on M-Thurs. (8:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James P Trammell can be reached on 703.305.9768. The fax phone numbers for the organization where this application or proceeding is assigned are 703.305-7687 for regular communications and 703.305.7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308-1113.

DLG  
September 25, 2002

  
**JAMES P. TRAMMELL**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 3600**